

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 07076587  
PUBLICATION DATE : 20-03-95

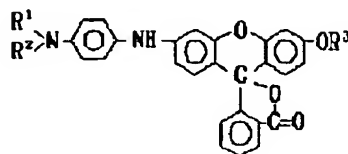
APPLICATION DATE : 18-06-93  
APPLICATION NUMBER : 05172151

APPLICANT : NIPPON SODA CO LTD;

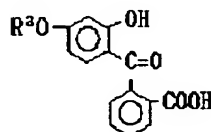
INVENTOR : KINOSHITA MASAOKI;

INT.CL. : C07D493/10 B41M 5/145 B41M 5/30

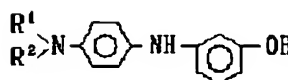
TITLE : NOVEL FLUORAN COMPOUND AND  
COLORING RECORDING MATERIAL  
USING THE SAME



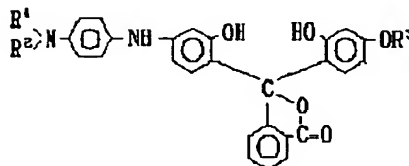
I



II



III



IV

ABSTRACT : PURPOSE: To obtain the novel compound, expressed by a specific structural formula, capable of developing a black color, excellent in shelf stability against such as plasticizer, oil, wet heat and light and useful as coloring recording materials such as heat-sensitive recording paper or pressure-sensitive copying paper.

CONSTITUTION: This compound is expressed by formula I ( $R^1$  and  $R^2$  are each a 1-5C alkyl, an alkenyl, a 4-6C cycloalkyl or an aryl-substituted 1-3C alkyl;  $R^1$  and  $R^2$  together with the adjacent N atom form pyrrolidino, piperidino or morpholino;  $R^3$  is H, a 1-5C alkyl, an alkenyl, a 4-6C cycloalkyl, an aryl or an aryl-substituted 1-3C alkyl), e.g. 3-methoxy-6-(4-dimethylaminophenyl) aminofluoran. Furthermore, in production thereof, a benzoylbenzoic acid derivative expressed by formula II is reacted with a 3-aminophenol derivative expressed by formula III in the presence of a dehydration condensing agent to synthesize a phthalide compound expressed by formula IV, which is then intramolecularly cyclized in the presence an alkaline substance in an organic solvent to provide the compound.

COPYRIGHT: (C)1995,JPO